

CLAIMS

1. A system for assisting in the regeneration of depollution means (1) associated with oxidation catalyst-forming means (2), and integrated in an exhaust line (3) of a motor vehicle diesel engine (4) and in which the engine (4) is associated with common manifold means (7) for feeding the cylinders of the engine with fuel, and adapted at constant torque to implement a regeneration strategy by injecting fuel into the cylinders in at least one post-injection operation, the system being characterized in that it comprises:

- detector means (8) for detecting a regeneration request (req.RG) and thus a request for post-injection;
- detector means (9) for detecting a state of the foot being raised on the vehicle accelerator;
- temperature acquisition means (11) for acquiring the temperature downstream from the catalyst-forming means (2);
- means (8) for determining a maximum quantity of fuel to be injected in the post-injection operations during the period of returning to idling following the foot being raised on the accelerator, and on the basis of said temperature; and
- means (7, 8) for immediately interrupting the or each post-injection operation as soon as the quantity of fuel injected has reached the predetermined maximum quantity.

2. A system according to claim 1, characterized in that the depollution means (1) comprise a particle filter.

3. A system according to claim 1 or claim 2, characterized in that the depollution means (1) comprise a NOx trap.

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4. A system according to any preceding claim, characterized in that the fuel includes an additive for

being deposited, together with the particles with which it is mixed, on the depollution means (1) in order to facilitate regeneration thereof.

5 5. A system according to any one of claims 1 to 3, characterized in that the fuel includes an additive forming a NOx trap.

10 6. A system according to any preceding claim, characterized in that the engine is associated with a turbocharger (5, 6).